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**Qualified petroleum reserve and resources evaluator:** This Presentation contains information on petroleum reserves and resources which is based on and fairly represents information and supporting documentation reviewed by Mr Andrew Thomas who is a full time employee of Cooper Energy holding the position of General Manager, Exploration & Subsurface, holds a Bachelor of Science (Hons), is a member of the American Association of Petroleum Geologists and the Society of Petroleum Engineers and is qualified in accordance with ASX Listing Rule 5.41 and has consented to the inclusion of this information in the form and context in which it appears.

Reserves and Contingent Resources estimates: Information on the company's reserves and resources and their calculation are provided in the appendices to this presentation.

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P50 as it relates to costs is best estimate; P90 as it relates to costs is high estimate



## FY19 results: 4 features

1. Operational capability:

- Sole offshore project
- Casino Henry umbilical upgrade
- Safety performance

- 2. Gas contracts and cashflow:
- 5 new gas contracts
- Cashflow response to 2019 gas contracts
- 2020 contracts start January

3. Sole:

- Gas field development ready to go
- First gas flows expected after September commissioning

4. FY20 - a big year:

- Sole start-up
- Offshore Otway gas wells
- Onshore Otway gas well
- Biggest Cooper Basin drilling program yet
- and ....possibly Minerva Gas Plant



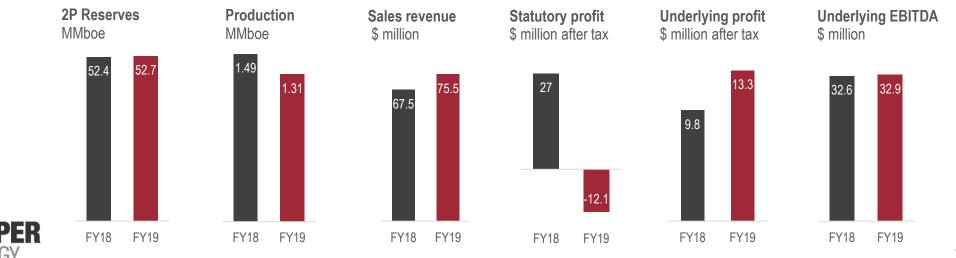
## Key outcomes

## Key project and commercial workstreams completed, safely.

- HSEC: zero lost time injuries and zero reportable environmental incidents
- Sole Gas Project: offshore project construction completed LTI-free and within budget
- Gas contracting: 5 new gas sales agreements, Sole term contract capacity committed to 2025
- Next growth wave: 2019 offshore campaign committed, preparations for 2020/21 campaign initiated
- Production: 1.31 million boe

or personal

- Reserves: maintained ~ 53 million boe
- Financial results: revenue up 12%, underlying profit after tax up 36%



# Safety

## Over 500,000 hours worked. Zero recordable injuries. Zero lost time injuries.

- Improvement to zero rating achieved against backdrop of increased hours and demanding breadth and nature of work
  - Offshore drilling rig operations
  - Onshore pipeline welding
  - Sole subsea pipelay and subsea hyperbaric welding
  - Subsea control umbilical upgrade
- Ongoing Regulatory Compliance
  - HSEC Management Systems: enhanced and fit-for-purpose
  - Multiple NOPSEMA inspections of regulatory documents and operational processes (Safety Cases, Environment Plans, Well Operations Management Plans)
  - Emergency Response Readiness: multiple drills
- Improvement initiatives program
  - "Care" our core value
  - Audits: regulatory, internal and key contractors
  - Continuous improvement processes ongoing
  - Awareness, training and competence development
  - Enhancement of our "One Team" culture

Safety metrics	FY19	FY18
Hours worked	505,300	491,100
Recordable incidents	0	2
Lost time injuries	0	0
Lost time injury frequency rate	0.0	0.0
Total recordable injury frequency rate (TRIFR) <sup>1</sup>	0.0	4.0
Industry TRIFR <sup>2</sup>	3.48	4.07



or personal

<sup>2</sup> Industry TRIFR is NOPSEMA benchmark for offshore Australian operations

<sup>&</sup>lt;sup>1</sup>TRIFR – Total Recordable Injury Frequency Rate all recordable incident data (Medical Treatment Injuries + Restricted Work/Transfer Case + Lost Time Injuries + fatalities) multiplied by 1,000,000 then divided by total hours worked

# Key financial results

\$ million	FY19	FY18	cha	ange
Sales revenue	75.5	67.5	<b>A</b>	12%
Gross profit	31.7	29.0	<b>A</b>	9%
Statutory profit/(loss) after tax	(12.1)	27.0	<b>V</b>	-145%
Underlying EBITDA	32.9	32.6	<b>A</b>	1%
Underlying EBITDAX	34.3	33.5	<b>A</b>	2%
Underlying profit/(loss) after tax	13.3	9.8	<b>A</b>	36%
Cash flow from operations	20.5	22.2	<b>V</b>	-8%
Cash	164.3	236.9	•	-40%
Drawn debt <sup>1</sup>	218.2	125.9	<b>A</b>	73%
Net (debt) / cash	(53.9)	111.0	<b>V</b>	-149%

<sup>&</sup>lt;sup>1</sup>Shown as \$213.7 million (FY18: \$116.9 million) on the balance sheet, net of prepaid transaction costs



# Statutory and underlying profit

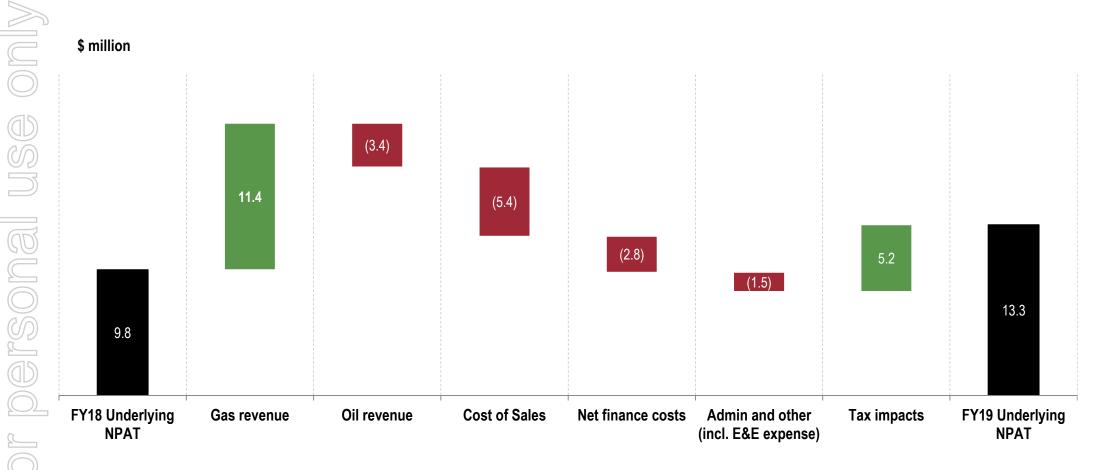
Restoration expense largely accounts for difference between statutory and underlying result

For the year ended 30 June 2019:		\$ million
Net profit after tax		(12.1)
Adjustments for:		
Restoration expense		
Previously announced at FY19 First Half	16.5	
FY19 Second Half	9.7	
Total FY19 Restoration expense		26.2
Gain on payment of exit provision		(0.8)
Underlying net profit after tax		13.3



# Underlying NPAT movement

Increased gas revenue the principal factor in higher underlying net profit after tax



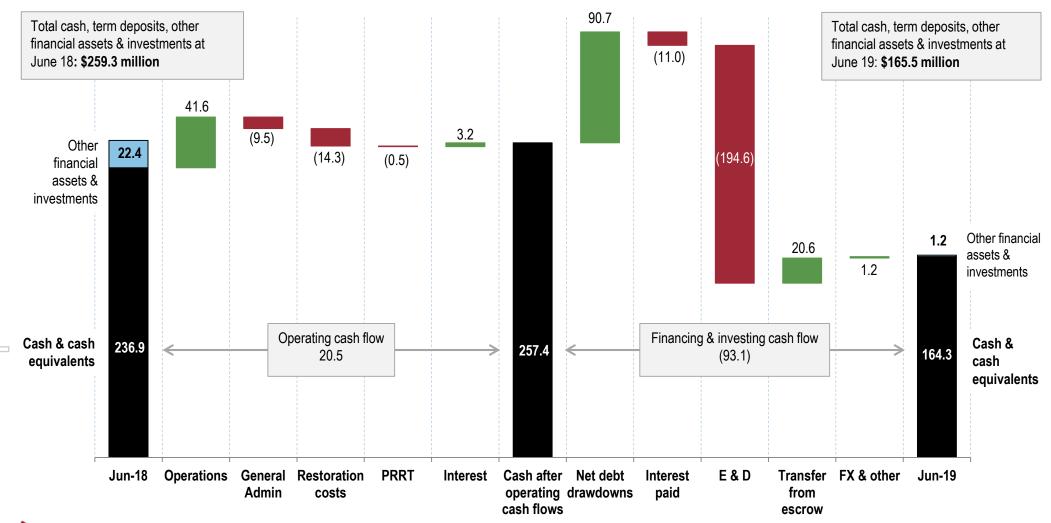
- Cost of sales increased due to higher gas processing costs, offset by lower depletion, depreciation and amortisation
- Admin and other costs have increased with the growth of the company



# Movement in cash and cash equivalents

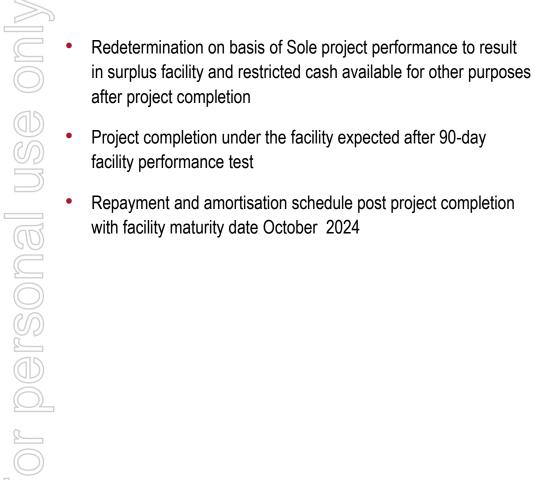
Cash from operations and debt draw-downs funded significant capital expenditure

### \$ million





# **Funding**



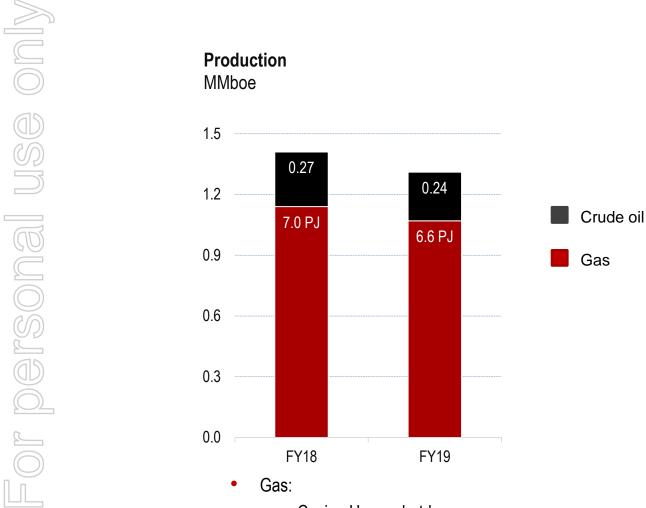
- Project completion under the facility expected after 90-day facility performance test
- Repayment and amortisation schedule post project completion with facility maturity date October 2024

\$ million	30 Jun 19	30 Jun 18
Cash	165.8	236.9
Drawn debt	218.2	125.9
Debt available		
<ul> <li>Project facilities</li> </ul>	14.8	98.9
Working capital	13.3	14.1



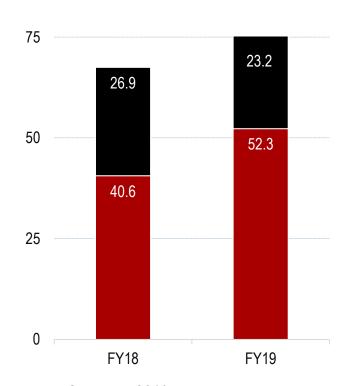
# Production and sales generation

## Revenue growth driven by new gas contracts



- Casino Henry shutdown
- Minerva approaching end of life
- Oil: Cooper Basin natural decline





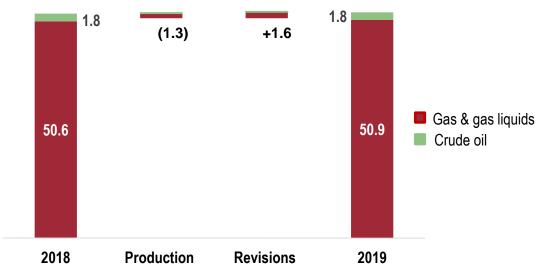
- Gas: new 2019 gas contracts
- Oil: lower sales volume



# Proved and Probable Reserves<sup>1</sup> at 30 June 2019

## Production replaced by revisions

# Movement in 2P Reserves at 30 June MMboe

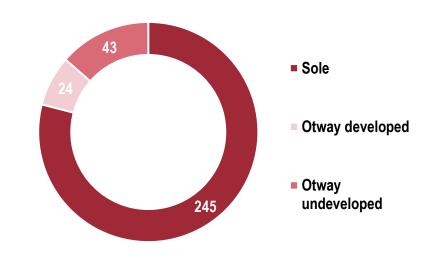


- Total 2P Reserves at 30 June 2019 of 52.7 million boe
- Revisions include:

Delsonal use

- Gas: up 1.4 million boe
- Oil: Cooper Basin field performance





- 2P gas Reserves increased from 309 PJ to 311 PJ
- Otway undeveloped increased from 35 to 43 PJ
- Otway undeveloped to be addressed by Henry development well and Minerva Gas Plant connection
- Sole 2P revised (4) PJ (1.8%) after analysis of well data



Reserves and Contingent Resources at 30 June 2019 were announced to the ASX on 12 August 2019 and should be read in conjunction with the information provided on the calculation of Reserves and Contingent Resources in the appendices. All numbers are rounded and as a result totals shown may not equate to arithmetical addition of rounded numbers shown.

# Gas contracting

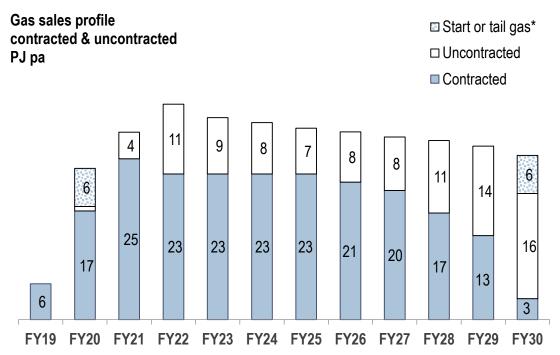
## ~30 PJ contracted in 5 agreements since 1 July 2018

		Customer	Supply	Period	Comments
2	2018				
	Sept	Origin Energy	Casino Henry	CY19	
	October	O-I	Casino Henry	CY19	Make available up to 3 TJ/day from Casino Henry
	2019				
	June	AGL Energy	Sole	Start of Sole production to end April 20	Majority of commissioning gas Firm gas from Jan to April 2020 to bridge foundation GSA
_		AGL Energy	Casino Henry	CY 20	Processing at Iona
	July	Visy	Sole	Jan '20 to Dec '22	Provision for 3 year extension to Dec '25



# Gas marketing portfolio

Long term stable production. Mix of customer types and terms.



<sup>\*</sup> Start or tail gas is the volume of gas that could be produced from Sole at plant design rates for the December quarter 2019. APA have advised Sole sales gas supply from the Orbost Gas Plant will commence in this quarter. As this date is not known the full production for the quarter has been identified separately. Gas not produced in the December quarter 2019 is deferred.



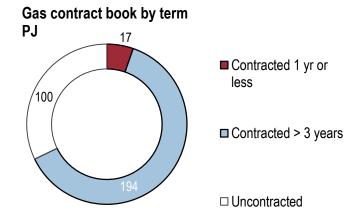
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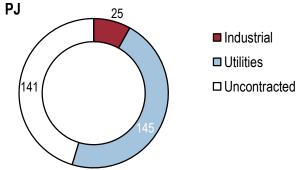








### Gas contract book by type of buyer











# Offshore Otway Basin FY19

## Gas production, new gas contracts commenced and further contracts under negotiation

Production	FY19	FY18
Sales gas PJ	6.6	7.0
Condensate kbbl	4.7	6.2
Total MMboe	1.08	1.15

Capital expenditure	FY19	FY18
Exploration	7.4	-
Development	15.3	18.2
Total	22.7	18.2

2P Reserves	FY19	FY18
Sales gas PJ	67	61
Total MMboe	10.9	10.0

Reserves and Contingent Resources at 30 June 2019 were announced to the ASX on 12 August 2019. The resources information displayed should be read in conjunction with the information provided on the calculation of Reserves and Contingent Resources provided in the appendices to this document.

### Casino Henry:

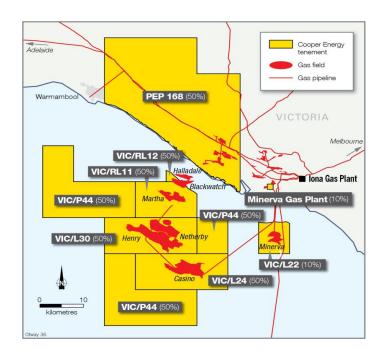
- New gas contracts from 1 January 2019
- Umbilical replacement and upgrade: readiness for new fields
- 2P gas Reserves<sup>1</sup> increased 10%; field performance

### Minerva

Approaching end of life; field switched to Minerva-4 for high rate blowdown

### **Exploration**

- Geological and geophysical analysis completed: selection of Annie and Elanora prospects
- Commitment to 2019 drilling campaign





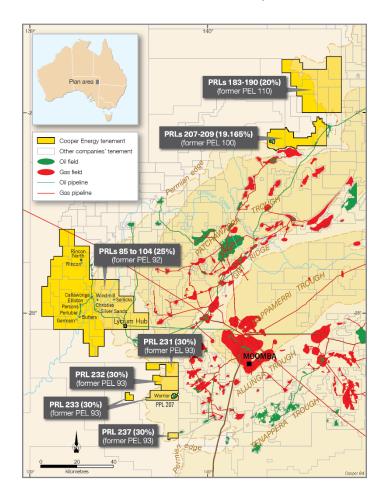
# Cooper Basin FY19

## Reserves maintained. High margin oil production.

Key figures	FY19	FY18
Production Crude oil kbbl	0.24	0.27
Average oil price A\$/bbl	106.19	85.55
Direct operating cost A\$/bbl	37.62	33.08
2P Reserves <sup>1</sup> MMbbl oil		
Developed	1.5	1.4
Undeveloped	0.3	0.4
Total <sup>1</sup>	1.8	1.8
Capital expenditure \$million	0.6	1.6

Reserves and Contingent Resources at 30 June 2019 were announced to the ASX on 12 August 2019. The resources information displayed should be read in conjunction with the information provided on the calculation of Reserves and Contingent Resources provided in the appendices to this document.

- Production and reserves outcome reflective of no drilling activity for the year
- 2P Reserves replacement ratio 100% as a result of revisions made to reflect field performance





<sup>&</sup>lt;sup>1</sup> The reserves exclude Cooper Energy's share of future fuel usage. Totals may not reflect arithmetic addition due to rounding.

# Sole Gas Project

Onshore and offshore workstreams. Onshore commissioning activities to commence in September.

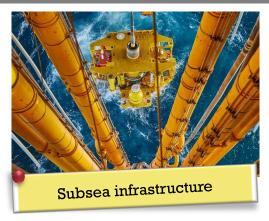
### Onshore project: APA Group



- \$250 million upgrade to Orbost Gas Plant
- APA expect commissioning to start in September

### Offshore project: Cooper Energy







Pipeline, umbilical control & shore crossing

\$355<sup>1</sup> million offshore project:

- construction completed
- within budget
- drilling and completion of 2 production wells
- 67 km pipeline and umbilical link to Orbost Gas Plant
- shore crossing to plant
- now ready for plant commissioning



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# Sole Gas Project safety performance

## Offshore construction completed with zero lost time injuries



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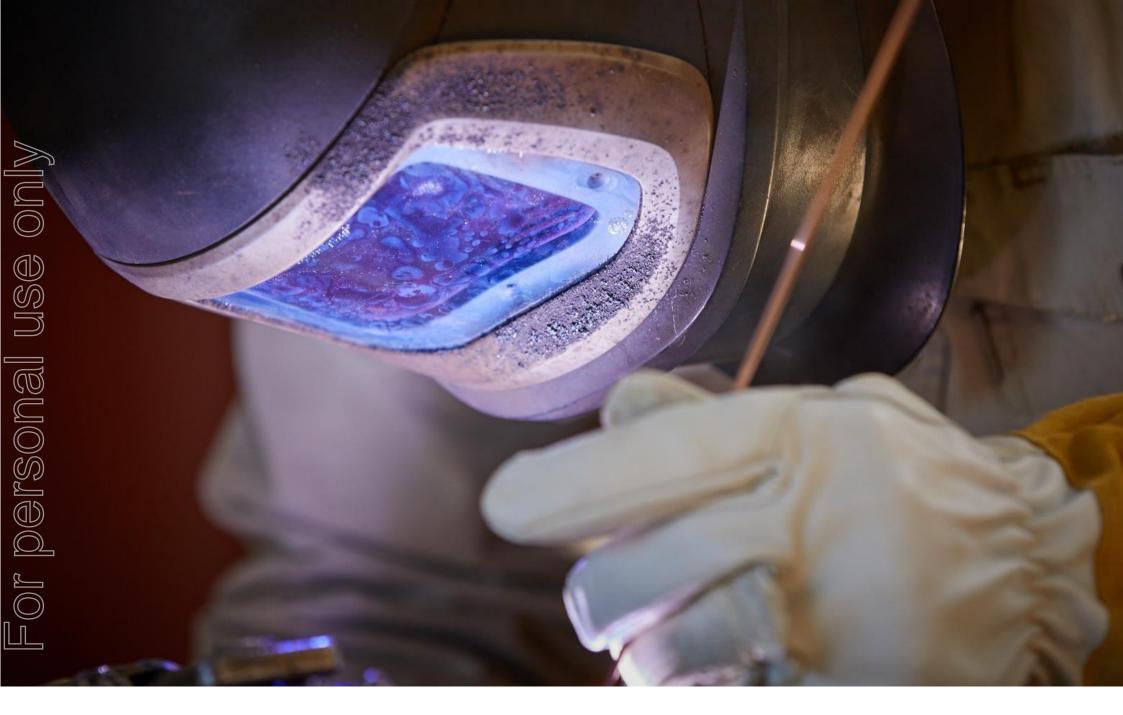






- Project performance 1 June 2017 to 30 June 2019
- 561,362 hours worked
- Project activities ranging from onshore pipe welding, horizontal drill shore crossing, drill, complete and test 2 production wells, well
  abandonment, pipe-lay, umbilical lay and hyperbaric welding
- Zero total lost time injuries, zero reportable environmental incidents
- Special acknowledgment to contractors Diamond Offshore, Subsea 7, Petroleum and Mining Engineering, Solstad Offshore, TechnipFMC,
   Baker Hughes GE, Schlumberger, Weatherford and Pipeline Drillers Group



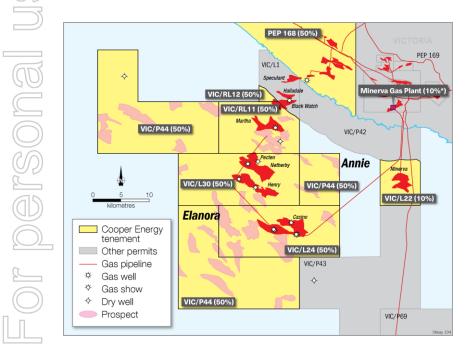




# Otway Basin FY20

## Gas exploration resuming. New contracts commencing. Development project for FY20/21.

Capital expenditure	FY20f	FY19
Exploration	~40	7.4
Development	~20	15.3
Total	55-60	22.7



### **Exploration**:

- 2019 offshore campaign: Annie-1 and Elanora-1: currently underway
- Dombey-1 onshore Otway, South Australia

### **Development**

- Henry development well preparation to FID
- Minerva Gas Plant front end engineering, planning
- Pending drilling results: offshore development 2020/21



Minerva Gas Plant: FEED for connection to Casino Henry to be completed in FY20



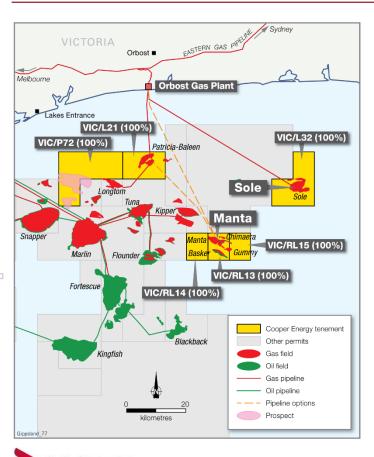
Diamond Offshore Ocean Monarch, is currently drilling Annie-1



# Gippsland Basin FY20

## Sole to come online. Preparing for Manta and exploration in FY21.

Capital expenditure	FY20f	FY19
Exploration	~10	4.7
Development	~10	171.0
Total	20-25	175.7



### Sole

- Field production to plant to commence with commissioning
- Commissioning expected to commence September
- Firm supply of sales gas expected in December quarter

### **Exploration**

- Subsurface studies, well construction engineering and planning for 2020/21 drilling
- Manta-3 appraisal/exploration well taken to FID
- VIC/P72 exploration well

### **Development**

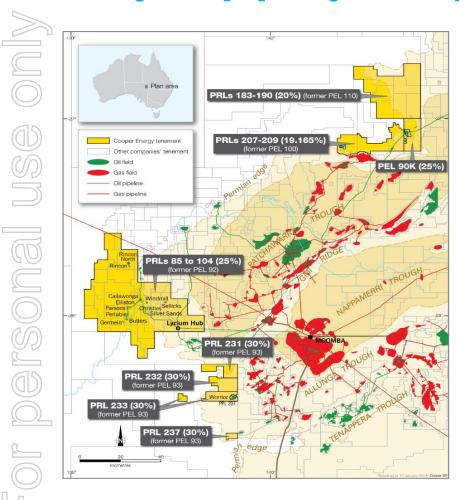
- Sole commissioning and close-out
- Scheduled maintenance of offshore facilities



**Orbost Gas Plant** 

# Operations: Cooper Basin FY20

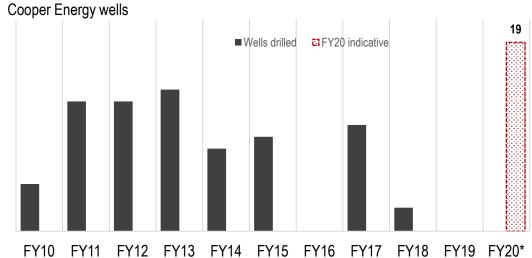
## Drilling to ramp up to highest level yet in low-cost high margin oil acreage



Capital expenditure	FY20f	FY19
Exploration	~10	-
Development	~15	1.6
Total	20-25	1.6

- Drilling to ramp up with PEL 92 step-out appraisal program similar to employed on Bauer field in PEL 91
  - 3 exploration wells
  - 10 wells to appraise Callawonga, Rincon, Parson and Windmill oil fields
  - 6 development wells pending appraisal drilling results

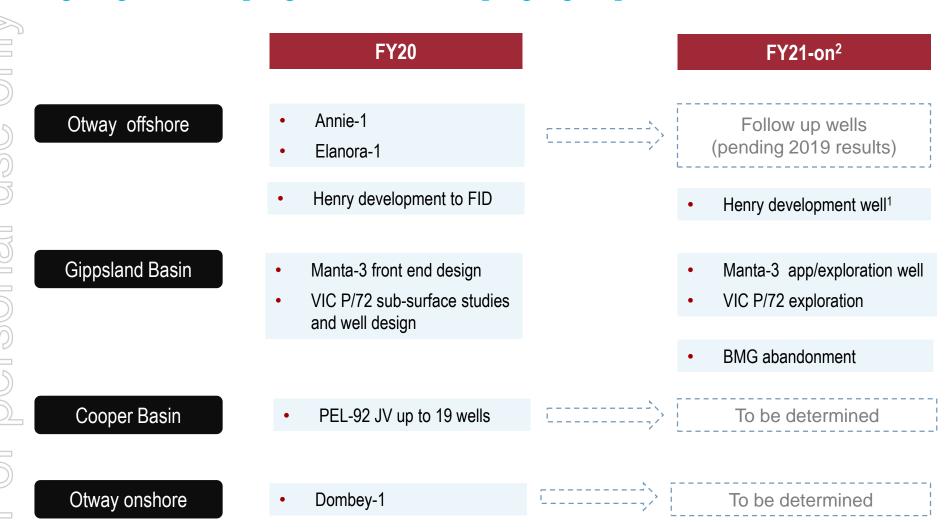
### Cooper Basin wells drilled





# Indicative drilling outlook

High significance program in FY20 shaping rig requirements for 2020/21





<sup>&</sup>lt;sup>1</sup> Subject to FID & joint venture agreement

<sup>&</sup>lt;sup>2</sup> Timing subject to rig availability

# Growth projects

## FY20 work program to advance several projects offering growth from 2020 to 2025

	Description	Impact	FY20 Planned action
Current			
Sole	New field start-up	24 PJ pa at plant design rates Upside from de-bottleneck	Commission, commence, performance test then de-bottleneck
Henry	Development well	Production of ca. 48 PJ gas gross (Cooper Energy share 50%)	Front end design and prepare for FID
Minerva Gas Plant	Acquire and connect plant to Casino Henry system	Reduce operating costs, secure firm processing capability, improve productivity & recovery	Dependent on Minerva field life. Expect to initiate in FY20
Manta	Appraisal well	Development decision on 2C Contingent Resource of 120 PJ & 3 MMbbl liquids	Well construction planning, FID and rig contracting for drilling Manta-3 in 2021
Potential			
Offshore Otway	Development of any commercial discoveries from FY20 drilling	Increase Otway Basin production from FY21 onwards	Exploration drilling now. Ready to proceed straight to FEED for development in 2020/21
Manta Deep	Manta-3 extension to test potential for substantial deeper gas resource	Manta project upsized	Well construction planning, FID and rig contracting for drilling Manta-3 in 2021



## Wrap-up

## Stepping off into growth

## Our work in 2019......

- ✓ Sole Gas Project
- ✓ Gas contracts
- Geotechnical analysis and modelling
- ✓ Bank facility redetermination
- ✓ Safety performance
- ✓ Community engagement

## has set up growth in 2020

- Sole production and cash flows
- New gas contracts
- Offshore Otway gas exploration
- Gas exploration onshore Otway
- Increased Cooper Basin drilling

# ... with new projects for the next wave of growth from 2021/22

- Manta
- Henry development
- Minerva Gas Plant integration
- Otway gas discoveries resulting from 2019 drilling
- Gippsland exploration





**Appendices** 

# Cooper Energy

## **Snapshot**

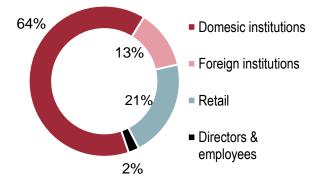
## **Key statistics\***

Proved & Probable Reserves	52.7 MMboe
Contingent Resources (2C)	26.9 MMboe
Market capitalisation	\$884 million
Net (debt)/cash	\$(53.9) million
Issued shares (million)	1,621.6

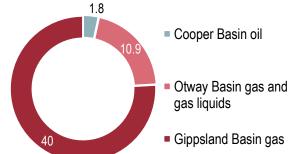
## **Register composition**

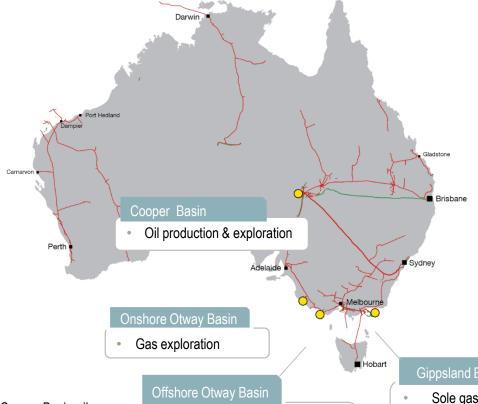
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% of issued capital held at 28 June 2019 by:

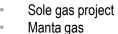


### **Proved & Probable Reserves** 52.7 MMboe at 30 June 2019





- Casino Henry gas field
- Minerva gas field and plant
- Exploration



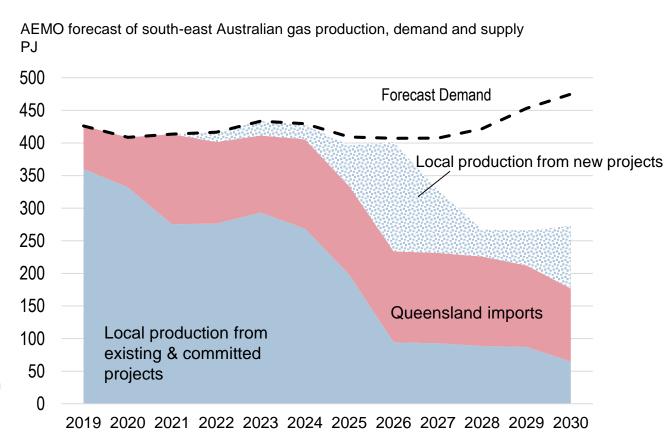






## Gas market outlook

## Gap between local production and supply creating favourable market for south-east Australian gas



- South-east Australia is reliant on Queensland gas to meet shortfall between local production and local demand
- Queensland providing ~70 PJ in 2019-20 then over 100 PJ pa
- Cost of Queensland gas delivered to southeast Australia is setting gas price
- Good market opportunities for gas from southeast Australian resources

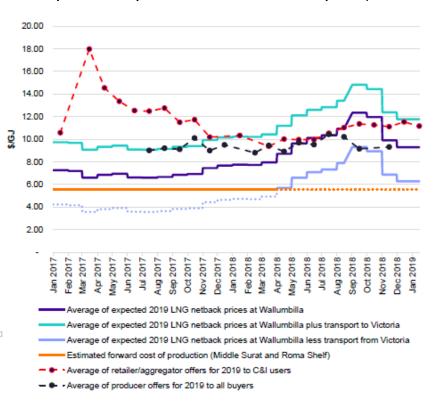
Source: AEMO, Gas Statement of Opportunities 2019



# Southern states gas prices: ACCC view

## Gas price and LNG netback trend

Average monthly commodity prices offered for 2019 supply against contemporaneous expectations of 2019 LNG netback prices (southern states)



Source: ACCC Gas Inquiry 2017 – 2020 Interim Report April 2019 (page 31) Based on contract information provided to ACCC

### 2020 expected prices

Expected 2020 wholesale gas commodity prices in the East Coast Gas Market (under GSAs executed between 31 August 2018 and 23 January 2019)

Expected 2020 wholesale gas commodity prices*	Avg price \$/GJ	Price range \$/GJ
Producers (Vic & SA)	9.77	8.92 - 10.97
Producers (QLD)	8.92	7.75 - 9.58
Retailer (NSW, Vic, Qld)	10.05	9.44 - 10.73

Source: ACCC Gas Inquiry 2017 – 2020 Interim Report April 2019 Based on contract information provided to ACCC

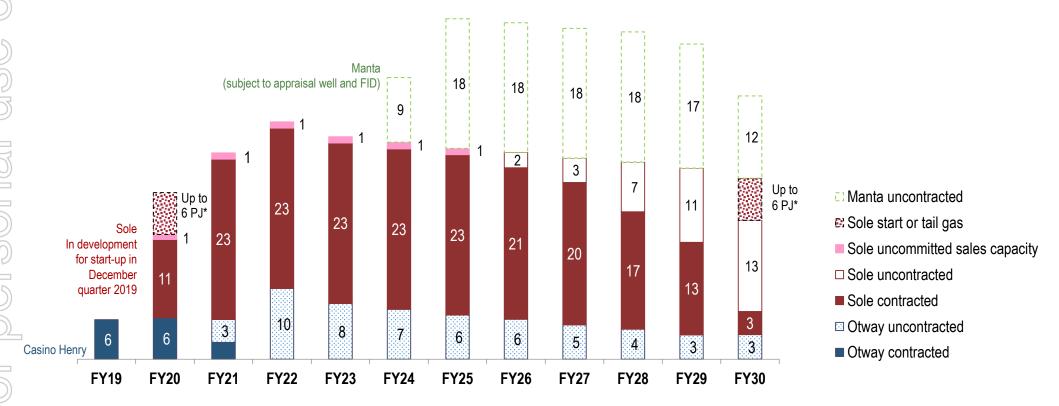


<sup>\*</sup> excludes transport

# Profile of contracted and uncontracted gas by project

Existing reserves and resources offer growth before exploration upside.

Gas sales profile by project contracted & uncontracted PJ pa



### \* Note

- Sole sales subject to project completion and Orbost Gas Plant availability. Commissioning expected to commence in September and commencement of sales gas supply in December at a date to be advised by APA.
- The quantity of gas produced in December quarter cannot be forecast at this stage as the date of Sole start-up is yet to be determined. Accordingly this chart depicts a full quarter's production at plant design rates of 68 TJ/day for the December quarter 2019 separately as 'Sole start or tail gas'. The share of this sales gas not produced in the December quarter is produced later, shown here in FY30..
- Henry development well mid 21, subject to rig availability & JV approval
- No exploration success
- Production profile from most recently announced reserves figures, as at 30 June 2019
- All numbers rounded and Cooper Energy equity share



# Reserves and Contingent Resources at 30 June 2019

Reserves	1P (Proved)			2P (Proved + Probable)				3P (Proved + Probable + Possible)					
		Cooper	Otway	Gippsland	Total <sup>1</sup>	Cooper	Otway	Gippsland	Total <sup>1</sup>	Cooper	Otway	Gippsland	Total <sup>1</sup>
Developed													
Sales gas	PJ	0	15	0	15	0	24	0	24	0	36	0	36
Oil + Cond	MMbbl	1.1	0.0	0.0	1.1	1.5	0.0	0.0	1.5	1.8	0.0	0.0	1.8
Sub-total	MMboe	1.1	2.4	0.0	3.6	1.5	3.9	0.0	5.4	1.8	5.8	0.0	7.6
Undeveloped													
Sales Gas	PJ	0	29	181	210	0	43	245	288	0	69	329	398
Oil + Cond	MMbbl	0.2	0.0	0.0	0.2	0.3	0.0	0.0	0.3	0.7	0.0	0.0	0.7
Sub-total	MMboe	0.2	4.8	29.6	34.5	0.3	7.0	40.0	47.3	0.7	11.3	53.7	65.7
Total <sup>1</sup>	MMboe	1.3	7.2	29.6	38.1	1.8	10.9	40.0	52.7	2.5	17.1	53.7	73.3

<sup>&</sup>lt;sup>1</sup>Totals may not reflect arithmetic addition due to rounding. The method of aggregation is by arithmetic sum by category. As a result, the 1P estimates may be conservative and the 3P estimates may be optimistic due to the effects of arithmetic summation. The Reserves exclude Cooper Energy's share of future fuel usage. See comment on conversion factor change in 'Notes on calculation of Reserves and Resources'.

Contingent		1C			2C			3C	
Resources	Gas PJ	Oil MMbbl	Total <sup>1</sup> MMboe	Gas PJ	Oil MMbbl	Total MMboe	Gas PJ	Oil MMbbl	Total MMboe
Gippsland	78	2.2	14.9	121	3.4	23.3	190	5.4	36.5
Otway	17	0.0	2.8	18	0.0	3.0	24	0.0	3.9
Cooper	0	0.3	0.3	0	0.6	0.6	0	1.1	1.1
Total <sup>1</sup>	95	2.5	18.0	140	4.1	26.9	214	6.5	41.5

<sup>&</sup>lt;sup>1</sup> Totals may not reflect arithmetic addition due to rounding. The method of aggregation is by arithmetic sum by category. As a result, the 1C estimate may be conservative and the 3C estimate may be optimistic due to the effects of arithmetic summation. See comment on conversion factor change in 'Notes on calculation of Reserves and Resources'.



## Minerva Gas Plant

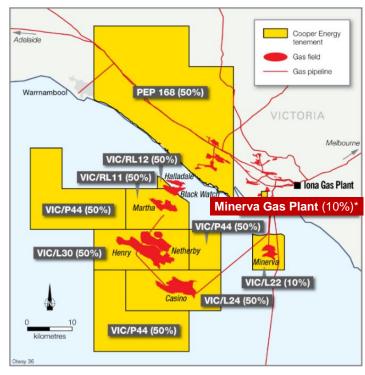
## Strategically located offering gains in net cash/GJ, processing, recovery rates & production



### Minerva Gas Plant acquisition

ersonal

- Casino Henry Joint Venture agreed acquisition of Minerva Gas Plant from BHP
- 150 TJ/day capacity, plus liquids handling capability
- Transaction subject to cessation of processing gas from Minerva Gas Field, regulatory approvals and assignments
- Minerva Cutback Project: engineering design advanced for connection of Casino Henry to Minerva Gas Plant
  - 250m pipeline connection
  - Control system integration
- Offers reduced processing costs; productivity and developed reserves increase on lower inlet pressure and processing for future developments



\* Equity to increase to 50% on completion of acquisition by Casino Henry Joint Venture as announced 1 May 2018

# Projects pipeline: indicative

5 year development program can lift gas production more than 10 times FY19 levels, excluding exploration

FY20	FY21	FY22	FY23	FY24				
Sole: <sup>1</sup> production 68	ole: <sup>1</sup> oduction 68TJ/d (~24 PJ per annum)							
	a <b>Gas Plant:²</b> , integrate and op	erate						
		Henry: <sup>3</sup> development well:	production uplift					
			Potential offshore Otv Production from FY19 6					
				Manta: <sup>5</sup> 24 PJ pa plus liquids				



<sup>&</sup>lt;sup>1</sup> APA advise plant is expected to be ready commence commissioning in September. Sole gas to flow to plant after commissioning commencement

<sup>&</sup>lt;sup>2</sup> Minerva Gas Plant: Casino Henry JV have agreement to acquire on cessation of Minerva production

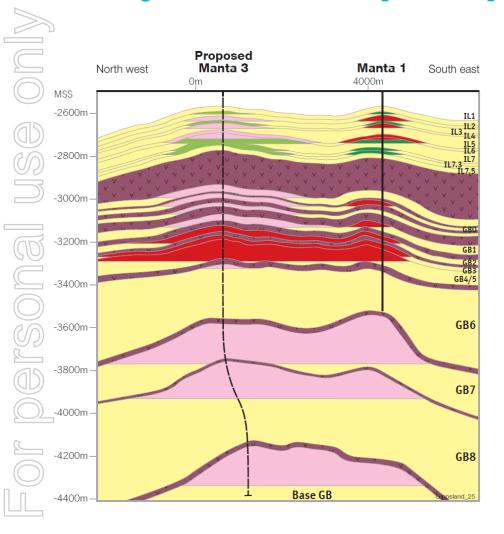
<sup>&</sup>lt;sup>3</sup> Henry development well: subject to joint venture FID to access 48 PJ undeveloped 2P reserves (Cooper Energy share 24 PJ)

<sup>&</sup>lt;sup>4</sup> Offshore Otway: potential development from exploration success in CY19 drilling subject to rig availability and JV approval

<sup>&</sup>lt;sup>5</sup> Manta: subject to appraisal well planned for 2020/21 subject to rig availability

# Manta gas and liquids resource

## Contingent Resource with exploration potential



### Manta Contingent Resource<sup>1</sup> estimate

		1C	2C	3C
Condensate	MMbbl	2.2	3.4	5.4
Gas	PJ	78	121	190

### Manta unrisked Prospective Resource<sup>1</sup> estimate

		Low (P90)	Best (P50)	High (P10)
Oil	MMbbl	1.0	1.5	2.3
Condensate	MMbbl	6.8	12.9	25.9
Gas	PJ	276	526	1,054

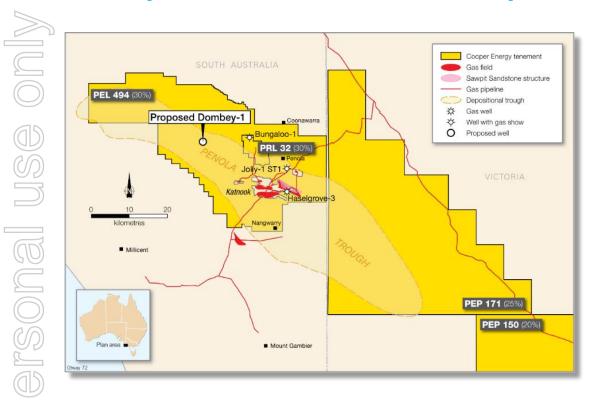
The estimated quantities of petroleum that may be potentially recovered by the application of future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Further exploration, appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

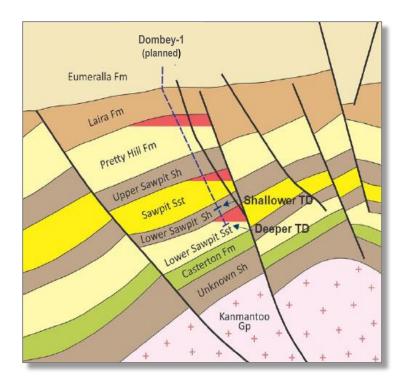


<sup>&</sup>lt;sup>1</sup> Contingent Resource for the Manta gas and liquids resource was announced to ASX on 12 August 2019. Prospective Resource for the field was announced to the ASX on 4 May 2016. Cooper Energy confirms that it is not aware of any new information or data that materially affects the information included in the announcements of 12 August 2019 or 4 May 2016 and that all the material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed.

# Otway Basin: Penola Trough onshore

## Dombey-1 to be drilled to evaluate Pretty Hill Formation and Sawpit Sandstone potential





- Spud expected late August 2019 to test similar stratigraphic section as Haselgrove gas field in adjoining PPL 62 which confirmed conventional gas prospectivity of Sawpit Sandstone at depths below previous producing levels
- To drill approx. 3,500 m to access primary Pretty Hill Formation and Sawpit Sandstone targets and lower Sawpit Sandstone secondary target
- Supported by \$6.9 million SA government PACE grant to PEL 494 JV (Cooper Energy 30% interest; Beach Energy 70%)



# FY20 Expenditure guidance



by region \$ million	Exploration	Development	Total	Notes
Otway Basin	~40	~20	55-60	<ul> <li>Annie-1 and Elanora-1</li> <li>Henry development preparation to FID</li> <li>Minerva Gas Plant front-end engineering, planning etc</li> <li>Onshore Otway exploration: Dombey-1</li> </ul>
Gippsland Basin	~10	~10	20-25	<ul> <li>Sole commissioning, close-out &amp; routine maintenance</li> <li>Capitalised interest of \$4 million</li> <li>Maintenance of offshore facilities</li> <li>Manta-3 front-end well design</li> <li>VIC/P72 studies and exploration well design</li> </ul>
Cooper Basin	~10	~15	20-25	<ul> <li>10 appraisal wells</li> <li>6 development wells (pending appraisal results)</li> <li>3 exploration wells</li> </ul>
Total	~60	~45	100-110	
G & A	~ \$17 million (or	approximately \$12 millio	on excluding share based pa	ayments) anticipated



<sup>\*</sup> Cash capital expenditure for the year will include payment for capital expenditure incurred late in FY18. Capital expenditure incurred in FY19 and paid in FY20 is expected to approximate \$30 million.

# Impact of Sole start-up and lease accounting

### Sole:

or personal

- Gas sales of 68 TJ per day at plant design rates
- Amortisation based on production, 2P reserves and development costs
- Interest expense no longer capitalised

### Lease accounting standard (AASB 16: Leases) effective 1 July 2019:

- Impacts identified in respect of property leases and the Orbost Gas Plant<sup>1</sup>
- Sole Gas Processing Agreement creates a c.\$260 \$290 million 'right of use' asset and corresponding lease liability
- Toll by Orbost Gas Plant for processing Sole gas will be accounted for as follows:
  - capital component (Initial Term) is recognised as amortisation expense of right of use asset and interest expense (unwind of lease liability)
  - opex component is recognised separately as Cost of Sales
- No impact on debt covenants

<sup>1</sup>Iona Gas Plant processing arrangements are not captured under AASB 16



# **Underlying EBITDAX**

- EBITDAX is earnings before interest, tax, depreciation, amortisation, restoration, exploration and evaluation expense and impairment
- Proxy for cash profit before tax and interest

\$ millions	2019	2018	Comments
Underlying profit/(loss)	13.3	9.8	
Net finance costs	1.6	(1.4)	Includes interest income/expense and non-cash accretion
Tax (benefit)/expense	(1.2)	4.0	Includes income tax and PRRT
Depreciation and amortisation	19.2	20.2	Non-cash depreciation on PPE and amortisation on Oil and Gas assets
Underlying EBITDA	32.9	32.6	
Exploration and evaluation expense	1.4	0.9	Non-cash E&E expensed to the income statement
Underlying EBITDAX	34.3	33.5	



## Notes on calculation of Reserves and Resources

### Notes on calculation of Reserves and Contingent Resources

Cooper Energy has completed its own estimation of Reserves and Contingent Resources for its fully-operated Gippsland Basin assets, and elsewhere based on information provided by the permit Operators (Beach Energy Ltd for PEL 92, Senex Ltd for Worrior Field, and BHP Billiton Petroleum (Vic) P/L for Minerva Field — in accordance with the definitions and guidelines in the Society of Petroleum Engineers (SPE) 2018 Petroleum Resources Management System (PRMS).

All Reserves and Contingent Resources figures in this document are net to Cooper Energy.

Petroleum Reserves and Contingent Resources are prepared using deterministic and probabilistic methods. The resources estimate methodologies incorporate a range of uncertainty relating to each of the key reservoir input parameters to predict the likely range of outcomes. Project and field totals are aggregated by arithmetic summation by category. Aggregated 1P and 1C estimates may be conservative, and aggregated 3P and 3C estimates may be optimistic due to the effects of arithmetic summation. Totals may not exactly reflect arithmetic addition due to rounding.

The Company has changed the FY18 energy conversion factor consistent with Society of Petroleum Engineers (SPE) conversions and PRMS guidance. The previous conversion factor of 1 PJ = 0.172 MMboe was adopted when the Company was predominantly a Cooper Basin oil producer. With the change to a predominantly offshore gas-producing Company, a conversion factor of 1 PJ = 0.163 MMboe (5.8 MMBtu/bbl) is more consistent with industry and SPE standard energy conversions. The new conversion factor has no impact on gas reserves expressed in PJ.

The information contained in this report regarding the Cooper Energy Reserves and Contingent Resources is based on, and fairly represents, information and supporting documentation reviewed by Mr Andrew Thomas who is a full-time employee of Cooper Energy Limited holding the position of General Manager Exploration & Subsurface, holds a Bachelor of Science (Hons), is a member of the American Association of Petroleum Geologists and the Society of Petroleum Engineers, is qualified in accordance with ASX listing rule 5.41, and has consented to the inclusion of this information in the form and context in which it appears.

### Reserves

Under the SPE PRMS 2018, "Reserves are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions".

The Otway Basin totals comprise the arithmetically aggregated project fields (Casino-Henry-Netherby and Minerva) and exclude reserves used for field fuel.

The Cooper Basin totals comprise the arithmetically aggregated PEL 92 project fields and the arithmetic summation of the Worrior project reserves, and exclude reserves used for field fuel.

The Gippsland Basin total comprises Sole Field only, where the Contingent Resources assessment at 30 June 2017 as announced to the ASX on 29 August 2017 has been reclassified to Reserves.

### **Contingent Resources**

Under the SPE PRMS 2018, "Contingent Resources are "those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations by application of development projects, but which are not currently considered to be commercially recoverable owing to one or more contingencies".

The Contingent Resources assessment includes resources in the Gippsland, Otway and Cooper basins. The following material Contingent Resources assessment was released to the ASX:

Manta Field on 16 July 2015

Cooper Energy is not aware of any new information or data about Manta Field that materially affects the information provided in that release, and all material assumptions and technical parameters underpinning the Manta estimates provided in the release continue to apply.

Basker Field Contingent Resources reported on 18 August 2014 and carried unchanged through FY17 have been reclassified as Discovered Unrecoverable in FY18 due to approval of field abandonment.



# Senior management team

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From left: Amelia Jalleh,, Duncan Clegg, David Maxwell, Eddie Glavas, Virginia Suttell, Iain MacDougall, Andrew Thomas, Mike Jacobsen



# Senior management

### **Managing Director** David Maxwell

David Maxwell has over 30 years' experience as a senior executive with companies such as BG Group, Woodside and Santos. As Senior Vice President at QGC, a BG Group business, he led BG's entry into Australia, its alliance with and subsequent takeover of QGC. Roles at Woodside included director of gas and marketing and membership of Woodside's executive committee.

### General Manager, Development Duncan Clegg

Duncan Clegg has over 35 years' experience in upstream and midstream oil and gas development, including management positions at Shell and Woodside, leading oil and gas developments including FPSO, subsea and fixed platforms developments. At Woodside Duncan held several senior executive positions including Director of the Australian Business Unit, Director of the African Business Unit and CEO of the North West Shelf Venture.

## **Eddy Glavas** Eddy Glavas has more than 20 years'

General Manager, Commercial

& Business Development

experience in business development, finance, commercial, portfolio management and strategy, including 16 years in oil & gas. Prior to joining Cooper Energy, he was employed by Santos as Manager Corporate Development with responsibility for managing multi-disciplinary teams tasked with mergers, acquisitions, partnerships and divestitures.

### General Manager, Projects Michael Jacobsen

Michael Jacobsen has over 25 years' experience in upstream oil and gas specialising in major capital works projects and field developments. He has worked more than 10 years with engineering and construction contractors and then progressed to managing multi discipline teams on major capital projects for E&P companies.

### Company Secretary & General Counsel Amelia Jalleh

Amelia Jalleh has more than eighteen years' experience in the international oil and gas industry, including senior corporate, commercial and legal roles in Australia, the Middle East, North America and South-East Asia for Talisman Energy, King & Spalding LLP and Santos. Ms Jalleh holds a Masters of Laws (University of Melbourne) a Bachelor of Laws and Legal Practice (Hons) (Flinders University of South Australia) and a Bachelor of Arts (Flinders University of South Australia).

### General Manager, Operations Iain MacDougall

Iain MacDougall has more than 30 years experience in the upstream petroleum exploration and production sector. His experience includes senior management positions with independent operators and wide-ranging international experience with Schlumberger. In Australia, lain's previous roles include Production and Engineering Manager and then acting CEO at Stuart Petroleum prior to the takeover by Senex Energy.

### Chief Financial Officer Virginia Suttell

Virginia Suttell is a chartered accountant with more than 25 years' experience, including 20 years in publicly listed entities, principally in group finance and secretarial roles in the resources and media sectors. This has included the role of Chief Financial Officer and Company Secretary for Monax Mining Limited and Marmota Energy Limited. Other previous appointments include Group Financial Controller at Austereo Group Limited.

### General Manager, **Exploration & Subsurface Andrew Thomas**

Andrew Thomas is a successful geoscientist with over 30 years' experience in oil and gas exploration and development in companies including Geoscience Australia, Santos, Gulf Canada and Newfield Exploration. Prior to joining Cooper Energy he was SE Asia New Ventures Manager and **Exploration Manager for offshore** Sarawak for Newfield Exploration.



## **Abbreviations**

**\$, A\$** Australian dollars unless specified otherwise

APA APA Group

Bbl barrels of oil

Boe barrel of oil equivalent

**EBITDA** earnings before interest, tax, depreciation and amortisation

**FEED** Front end engineering and design

FID Final Investment Decision

kbbl thousand barrels

m metres

MMbbl million barrels of oil

MMboe million barrels of oil equivalent

**NPAT** net profit after tax

PEL 92 Joint Venture conducting operations in Western Flank Cooper Basin Petroleum Retention Licences 85–104 previously

encompassed by the PEL 92 exploration licence

PEL 93 Joint Venture conducting operations in Cooper Basin Petroleum Retention Licences PRL 231-233 previously encompassed

by the PEL 93 exploration licence

PJ Petajoules (10<sup>15</sup> joules)

TRCFR Total Recordable Case Frequency Rate. Recordable cases per million hours worked

YTD Year to date

**1P Reserves** Low estimate of Reserves - Proved Reserves

**2P Reserves**Best estimate of Reserves. The sum of Proved and Probable Reserves

**3P Reserves** High estimate of Reserves. The sum of Proved, Probable and Possible Reserves

1C, 2C, 3C high, best and low estimates of Contingent Resources

